## CLAIMS:

- A golf ball comprising a core and a cover wherein said cover on its surface incorporates a coating comprising a thermochromic material, wherein the thermochromic material is capable of indicating whether the golf ball is above or below a predetermined temperature.
- 2. The golf ball of claim 1 wherein the thermochromic material comprises a leuco dye system.
- 3. The golf ball of claim 1 wherein the thermochromic material is incorporated into a primer coat.
- 4. The golf ball of claim 1 wherein the thermochromic material is incorporated into a topcoat.
- The golf ball of claim1, wherein the cover comprises at least one inner cover layer and at least one outer cover layer.
- 6. The golf ball of claim 1, further comprising a temperature indicating mark printed on the cover.
- 7. The golf ball of claim 1, wherein the core comprises at least an inner core and a core layer surrounding the inner core.
- 8. A golf ball comprising a core and a cover wherein said cover incorporates on its surface at least one coating layer, wherein the at least one coating layer comprises a thermochromic material, and wherein the thermochromic changes to a visible color at a predetermined temperature, thereby allowing the observation of the thermochromic material.
- 9. The golf ball of claim 8 wherein the thermochromic material is a leuco dye system.
- 10. The golf ball of claim 8 wherein the thermochromic material is incorporated into a primer coat.
- 11. The golf ball of claim 8 wherein the thermochromic material is incorporated into a topcoat.
- 12. The golf ball of claim 8 wherein the cover comprises at least one inner cover layer and at least one outer cover layer.

P-6023-2

- 13. The golf ball of claim 8, further comprising a temperature indicating mark printed on the cover.
- 14. The golf ball of claim 8, wherein the core comprises at least an inner core and a core layer surrounding the inner core.
- 15. A golf ball comprising a core and a cover wherein said cover incorporates at least one coating layer comprising a thermochromic material to indicate whether said golf ball is above or below a predetermined temperature, said thermochromic material comprising a leuco dye system.
- 16. The golf ball of claim 15 wherein said thermochromic material is incorporated into a primer coat.
- 17. The golf ball of claim 15 wherein said thermochromic material is incorporated into a topcoat.
- 18. The golf ball of claim 15 wherein the cover comprises at least one inner cover layer and at least one outer cover layer.
- 19. The golf ball of claim 15, further comprising a temperature indicating mark printed on the cover.
- 20. The golf ball of claim 15, wherein the core comprises at least an inner core and a core layer surrounding the inner core.

P-6023-2